Side-by-Side Refrigerator —Technical Information

ACD2234HR* ACD2234HR*2, ACD2234KRS ACD2234KRS, ASD2325KE* ASD2325KE*0, ASD2625KE* ASD2625KE*0, GSD2615HE* GSD2615HE*1, MSD2352KE* MSD2352KE*0, MSD2650HE* MSD2650HE*1, MSD2650KES MSD2650KES0, MSD2651HE* MSD2651HE*2, MSD2651KES MSD2651KES0, MSD2652KEGB MSD2652KEGB0, MSD2652KEGW MSD2652KEGW0, MSD2652KES MSD2652KES0, MSD2652KGB MSD2652KGB0, MSD2652KGW MSD2652KGW0, MZD2663KE* MZD2663KE*0

NOTE: Refer to Service Bulletin F-896-S for complete diagnostics of Ice 'N Water™ dispenser control.

- Due to a possibility of personal injury or property damage, always contact an authorized technician for service or repair of this refrigerator.
- Refer to Service Manual 16025628 for installation, operating, disassembly, icemaker, testing, and troubleshooting information.

⚠ CAUTION

All safety information must be followed as provided in Service Manual 16025628.

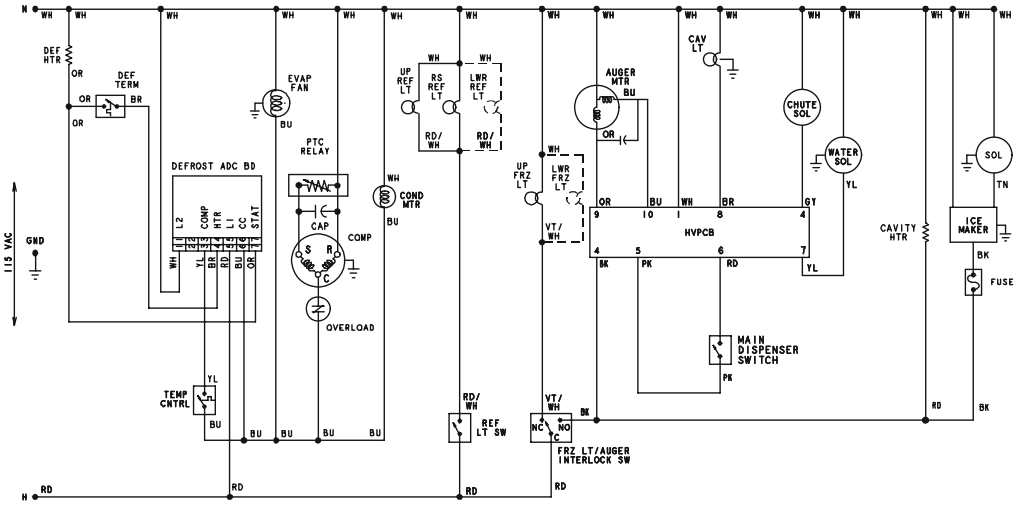
⚠ WARNING

To avoid risk of electrical shock that can cause death or severe personal injury, disconnect unit from power before servicing unless testing is required. Discharge capacitors through a 10,000 ohm resistor before handling. Wires removed during disassembly must be replaced on correct terminals to ensure proper grounding and polarization.

No-Load Performance, Controls in Normal Position															
	Kw/24 hr ±0.4			Percent Run Time ±10%			Cycles/24 hr ±25%			Refrigerator Center Compartment Average Food Temperature ±3°F			Freezer Compartment Average Food Temperature ±3°F		
Ambient °F	70°	90°	110°	70°	90°	110°	70°	90°	110°	70°	90°	110°	70°	90°	110°
22 &26 cu ft	1.10	1.80	3.62	30	52	91	29	29	12	36	37	37	-1	-2	-1

Temperature Relationship Test Chart												
	Evaporator Outlet ±3°F		Evaporator Inlet ±3°F		Suction Line ±7°F		Average Total Wattage ±10%		Suction Pressure ±2 PSIG		Head Pressure ± 5 PSIG	
Ambient °F	70°	90°	70°	90°	70°	90°	70°	90°	70°	90°	70°	90°
22 & 26cu ft	-21	-17	-21	-17	69	94	133	138	4"(vac.)	0	95	145

Schematic



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Component Specifications

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Component	**Specifications all parts 115VAC/60HZ unless noted**	
Compressor run capacitor	Volt Capacitance	220 VAC 15 μfd ± 10%
Compressor	BTUH Watt Current Lock rotor Current Full load Resistance Run windings Resistance Start windings	905 BTUH 60 Hz / 152 watts 19.0 amps± 15% 1.26 amps± 15% 3.33 ohms± 15% 4.28 ohms± 15%
Damper control	Settings #1 #4 #7	Closing temperatures 49.0°F 41.3°F 30.2°F
Freezer temperature control	Settings #1 – out #4 – out #7 – out	Temperatures 7.3°F ±3.5° -2.0°F ±2.0° -8.6°F ±3.5°
Condenser motor	Rotation (facing end opposite shaft) RPM Watt Current	Clockwise 1120 RPM 3.4 watts @115VAC 0.085 amps @115VAC
Evaporator fan motor	Rotation (facing end opposite shaft) RPM Watt Note: Fan blade must be fully seated on shaft to achieve proper airflow.	Clockwise 2800 RPM 5.9 ±15% watts@115VAC
Overload/Relay	Ult. trip amps @ 158°F (70°C) Close temperature Open temperature Short time trip (seconds) Short time trip (amps @77°F (25°C)	2.40 amps± 15% 140°F ±10° 230°F ±5° 17 seconds ±5 12 amps ±2amps
Thermostat (Defrost)	Volt Watt Current Resistance across terminals: Above 42°F ±5° Below 12°F ±7°	120/240 VAC 475 watts 10/5 amps Open Closed
Adaptive defrost control	Volt	120VAC, 60 HZ See adaptive defrost board section
Evaporator heater	Volt Wattage Resistance	115 VAC 450 ±5% watts @ 115VAC 29 ±5% ohms
Auger Motor	Rotation (facing end opposite shaft) RPM	Power to blue and white is clockwise. Power to orange and white is counterclockwise. 17± 3 RPM
Water Valve	Watts	Brown side 35w, Yellow side 20w
Light switch	Type Volt Current	SPST NC 125/250 VAC 8/6 amps
Light switch / Interlock	Type Volt Current	SPDT NO/NC 125/250 VAC 8/6 amps
DC Solenoid (Ice Chute)	Resistance across leads	101ohms ± 10%

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Adaptive Defrost Control (ADC)

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The ADC adapts the compressor run time between defrosts to achieve optimum defrost intervals by monitoring the cold control and length the defrost heater is on.

After initial power up, defrost interval is 4 hours compressor run time. Defrost occurs immediately after the 4 hours.

Optimum defrost is 15 minutes. Each additional minute the defrost thermostat remains closed, 1 hr. is subtracted from the previous defrost interval. Each minute the thermostat opens prior to optimum defrost, it extends the next defrost interval 1 hr. When in defrost if defrost terminator opens there is a 6 minute drip time before compressor restarts or ADC will terminate defrost at 30 minutes even if defrost thermostat has not opened and will reset the defrost interval to the 8 hr. minimum setting.

4 hours of continuous compressor run resets the next defrost interval to 8 hours and will initiate a defrost, if 8 hours of compressor run time has also occurred.

Power up: Refrigeration mode will occur unless both the cold control and defrost terminator are open, in that case the defrost mode will occur for 2 minutes.

To Force Defrost: Turn cold control on and off 3 times within 6 seconds.

A forced defrost is immediate without any delay regardless of the cold control state or the defrost terminator state. (When the ADC cycles the unit into defrost on its own, defrost is delayed until 4 minutes after the compressor has been cycled off by the cold control.)

Note: Cold control contacts must make and break for defrost to occur. In some cases, freezer door must be left open to warm up the cold control sensing capillary to get the cold control contact to make and break. If cold control contacts do not make and break unit will not force a defrost.

To Terminate Defrost: The only way to manually terminate defrost is to disconnect power to the unit. Unit will automatically come out of defrost at the end of the normal defrost cycle.

Input Voltage Readings and Checks

L1 to L2 ..... Line voltage should be present when the unit is powered.

CC to L2 ..... Line voltage should be present when the cold control contacts are closed and ADC is not in defrost.

STAT to L2…… Line voltage should be present when the ADC is in defrost mode and the defrost terminator contacts are closed

Output Voltage Readings and Checks

HTR to L2 ..... Line voltage should be present when the ADC is in defrost mode.

COMP to L2…….. Line voltage should be present when the ADC is not in the defrost mode.

WATER DISPENSER

Seconds to dispense 10 oz. water

Supply pressure	35 psig	45 psig	55 psig	75 psig
Filter model Bypass installed	4.7	4.0	3.6	3.1
Filter model New filter installed	9.0	5.0	4.4	3.6

A minimum supply pressure of 35 psig for water filter units. Minimum pressure requirement ensures that water valves close and sufficient water volume is available to fill icemaker. Proper fill is 140 cc. of water in 7.5 seconds. Failure of water valves to close because of low pressure will result in fill-tube freeze-up or dripping at cavity.

Dispenser Light

Light activates at full power when dispensing ice or water. A sensor activates light at half-power when light level around refrigerator is low. Activate or deactivate sensor by pushing AUTO LIGHT button located on control façade. Green light above AUTO LIGHT button indicates sensor is active.

Dispenser Lock

Prevents operation of water and ice dispensers. To activate or deactivate lock, press and hold DISPENSER LOCK button for 3 seconds. Green light above button indicates dispenser lock.

Automatic Lock Out

Shuts down both ice and water mechanisms of dispenser when either mechanism has run continuously for 3 minutes. To return power to dispenser, press and hold DISPENSER LOCK for 3 seconds. Auger motor shuts off automatically after 3 minutes of continuous operation. After about 3 minutes in shut-off state, auger motor resets automatically.

Filter Status Light Reset

Once filter light turns red, it remains red until reset. To reset filter indicator, press both DISPENSER LOCK and WATER pushbuttons simultaneously and hold for 4 seconds. Make sure green light flashes 3 times when indicator resets.

NOTE: Refer to Service Bulletin F-896-S for complete diagnostics of Ice 'N Water™ dispenser control.

Sabbath Mode

This mode is intended to deactivate power to the LED and dispenser lights, while allowing the controls to remain operational.

To activate Sabbath mode:

- Press and hold both Dispenser Lock and Auto Light buttons simultaneously for 3 to 4 seconds, the LED and dispenser lights will turn off. **Dispenser light will not activate during dispensing while in this mode.**

To deactivate Sabbath mode:

- Press and hold both Dispenser Lock and Auto Light buttons simultaneously for 3 to 4 seconds. After 3 to 4 seconds, the LED and dispenser lights will activate.

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Wiring Diagram

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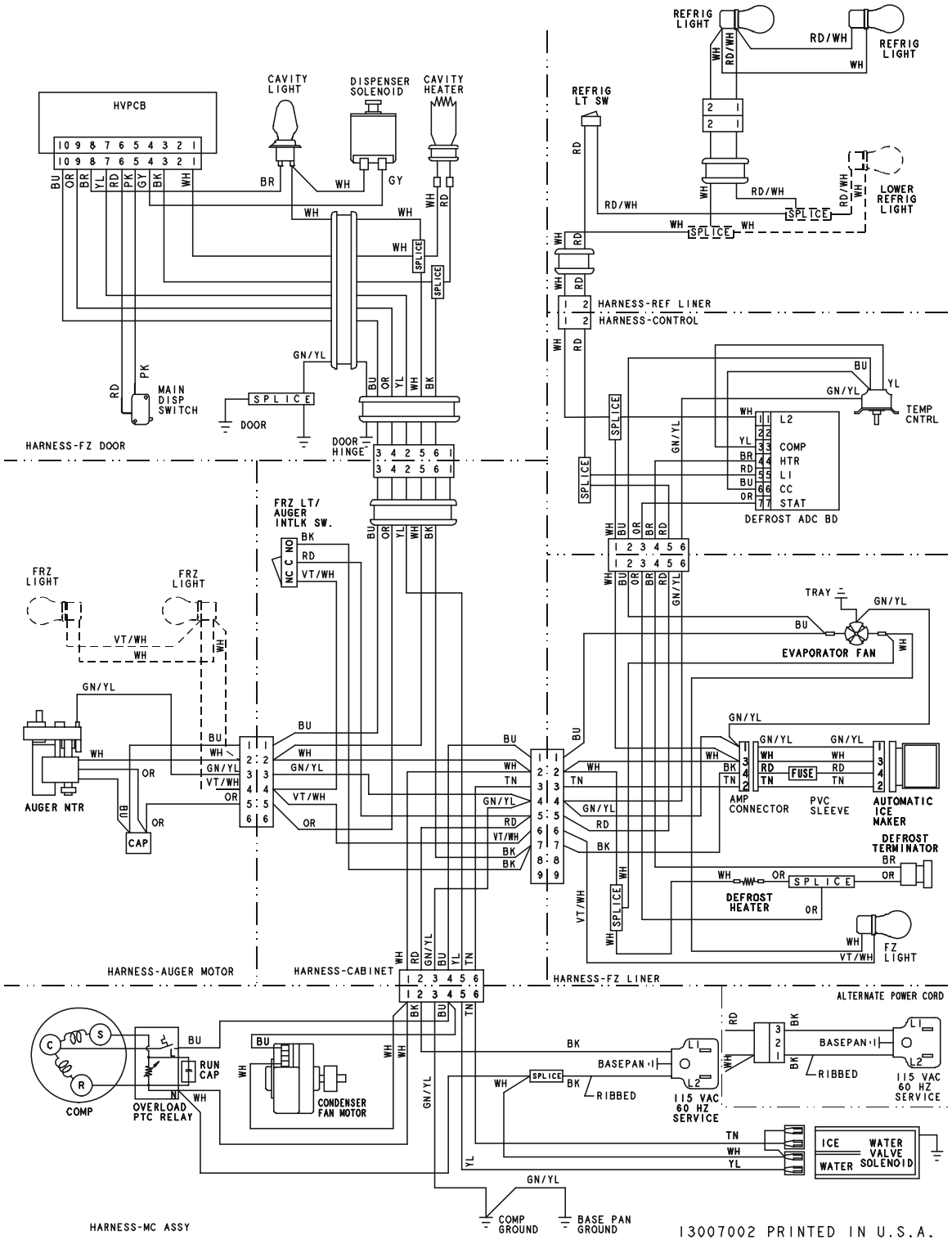

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